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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/990,601	11/21/2001	John E. Krech	57135US002	3879

32692 7590 01/22/2004

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EXAMINER

AUGHENBAUGH, WALTER

ART UNIT	PAPER NUMBER
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1772

DATE MAILED: 01/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/990,601

Applicant(s)

KRECH ET AL.

Examiner

Walter B Aughenbaugh

Art Unit

1772

-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 30-37 and 46-61 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 30-37 and 46-61 is/are rejected.
- 7) ☒ Claim(s) 32,48,53 and 56 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- ☐ Interview Summary (PTO-413) Paper No(s). _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other:

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on November 24, 2003 has been entered.

Acknowledgement of Applicant's Amendments

2. The amendments made in claims 30 and 33 in the Amendment filed November 24, 2003 (Paper 15) have been received and considered by Examiner.
3. New claims 46-61 presented Paper 15 have been received and considered by Examiner.

WITHDRAWN REJECTIONS

4. The 35 U.S.C. 102(b) rejection of claim 37 as anticipated by Nagano et al. repeated in paragraph 5 of Paper 13 has been withdrawn due to reconsideration of the written content of the rejection.
5. The 35 U.S.C. 103(a) rejection of claim 33 over Nagano et al. in view of Perez et al. repeated in paragraph 6 of Paper 13 has been withdrawn due to Applicant's amendment to claim 33 in Paper 15.

REPEATED REJECTIONS

6. The 35 U.S.C. 102(b) rejection of claims 30-32 as anticipated by Nagano et al. repeated in paragraph 5 of Paper 13 has been repeated for the reasons previously made of record. The antimony trioxide taught by Nagano et al. corresponds to the "at least one flame retardant" that is

Art Unit: 1772

“selected only from the group consisting of non-halogenated flame retardants” claimed in claim 30 in Paper 13.

7. The 35 U.S.C. 103(a) rejection of claim 34 over Nagano et al. in view of Perez et al. repeated in paragraph 6 of Paper 13 has been repeated for the reasons previously made of record.

8. The 35 U.S.C. 103(a) rejection of claim 35 over Nagano et al. in view of Ueeda et al. repeated in paragraph 7 of Paper 13 has been repeated for the reasons previously made of record.

9. The 35 U.S.C. 103(a) rejection of claim 36 over Nagano et al. in view of Nakacho et al. repeated in paragraph 8 of Paper 13 has been repeated for the reasons previously made of record.

NEW OBJECTIONS

Claim Objections

10. Claim is 32 objected to because of the following informalities: the “epoxy” species (the second “epoxy” term in the second line of the claim) is redundant because all “epoxy resin[s]” are “epoxy” resins. Appropriate correction is required.

11. Claims 48, 53 and 56 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

In regard to claim 48, in the instance where the “friction material on at least one surface of said container” recited in claim 47 is the chosen species, claim 48 does not further limit the subject matter of claim 47, upon which claim 48 depends. Claim 53 does not further limit the subject matter of claim 52 in the instances where any of the species claimed in claim 52 other than the epoxy species are the chosen species, since none of the species claimed in claim 52

Art Unit: 1772

other than the epoxy species are an epoxy resin. In regard to claim 56, in the instance where the “thermal curing agent” recited in claim 55 is the chosen species, claim 56 does not further limit the subject matter of claim 55, upon which claim 56 depends.

NEW REJECTIONS

Claim Rejections - 35 USC § 112

12. Claims 30, 49 and 50 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 30 recites the limitation "said plastic container composition" in the fifth line of the claim. There is insufficient antecedent basis for this limitation in the claim. Claim 49 recites the limitation "a curable thermosetting resin" in the third line of the claim and the limitation “at least one of a fully prepolymerized uncrosslinked hydrocarbon polyolefin resin and a fully prepolymerized uncrosslinked functionalized polyolefin resin” in the fifth-seventh lines of the claim. There is insufficient antecedent basis for these limitations in the claim. It is not clear if these resins are the “one or more of polyolefin resins or blend thereof” and the “one or more of thermosetting resins” claimed in claim 30, or if these resins recited in claim 49 are separate resins from the resins recited in claim 30, and therefore, the composition intended to be recited in claim 49 cannot be ascertained.

Claim Rejections - 35 USC § 102

13. Claims 30, 32, 34-37, 47 and 49-61 are rejected under 35 U.S.C. 102(b) as being anticipated by Oishi et al.

In regard to claim 30, Oishi et al. teach a plastic container (col. 69, line 3) comprising a polymeric composition comprising a blend of a polyolefin resin and a thermosetting resin (col.

Art Unit: 1772

29, lines 3-6 and 13-14) and a diguanamine flame retardant that is a non-halogenated flame retardant (col. 19, lines 1-5 and 10-11). The phrase “for one or both of shipping and storage” is an intended use phrase that has been given little patentable weight since it has been held that a recitation with respect to the manner in which a claimed article is intended to be employed does not differentiate the claimed article from a prior art article satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQd 1647 (1987). In regard to claim 32, Oishi et al. teach that the thermosetting resin is an epoxy resin that is an epoxy resin as claimed (col. 29, lines 56-57 and 61-62). In regard to claim 34, Oishi et al. teach that the container comprises glass beads as a filler (col. 32, lines 51-52 and col. 32, line 67-col. 33, line 2). In regard to claim 35, Oishi et al. teach that the diguanamines taught by Oishi et al. have excellent antifouling property (col. 3, lines 43-45); therefore, the diguanamines taught by Oishi et al. are antifouling agents, and therefore antimicrobial additives, as antifouling agents are characterized as antimicrobial additives in claim 61. In regard to claim 36, Oishi et al. teach that the flame retardant is a compound containing phosphorus-nitrogen bonds, since Oishi et al. teach that phosphorus-containing acids neutralized with bases such as ammonia or an amine, or ammonium polyphosphates, used in combination with diguanamine synergistically improves the flame-retarding results of the composition (col. 23, lines 37-43 and col. 24, lines 2-12 and 23); phosphorus-containing acids neutralized with bases such as ammonia or an amine, or ammonium polyphosphates contain phosphorus-nitrogen bonds. In regard to claim 37, Oishi et al. teach that the flame retardant is present in a range of 3-50 wt.% (col. 23, lines 28-30), a range that overlaps with the claimed range of “more than zero and up to and including 25 parts by weight”.

Art Unit: 1772

In regard to claim 47, Oishi et al. teach that the container comprises a filler (col. 32, lines 51-52 and 67). In regard to claim 51, Oishi et al. teach that the filler is incorporated as needed to an extent (i.e. in an amount) that does not impair the advantageous effects of the invention (col. 32, lines 51-54), an amount that overlaps with the claimed range of “more than 0 to 70 parts by weight”. In regard to claims 52 and 53, Oishi et al. teach that the thermosetting resin is an epoxy resin (col. 29, lines 56-57 and 61-62). In regard to claim 54, Oishi et al. teach that the polyolefin is an ethylene-vinyl acetate copolymer (col. 29, line 15), which is a functionalized polyolefin including oxygen atoms (O atoms as claimed). In regard to claim 55, Oishi et al. teach that the composition comprises a curing accelerator (a thermal curing agent as claimed, col. 14, lines 63-66). In regard to claim 57, Oishi et al. teach that the thermal curing agent is an imidazole (col. 14, lines 64-65). In regard to claim 58, Oishi et al. teach that the composition is cured (col. 14, line 62-col. 15, line 2). In regard to claim 59, Applicant defines the term “semi-interpenetrating polymer network” as “polymer networks of two or more polymers wherein at least one polymer is crosslinked and at least one polymer is uncrosslinked” at the top of page 6 of the specification; the blend of a polyolefin resin and a thermosetting resin taught by Oishi et al. is a semi-interpenetrating polymer network since the polyolefin resin is uncrosslinked and the thermosetting resin, by definition, is crosslinked.

In regard to claim 60, Oishi et al. teach that the antimicrobial additive (the diguanamine) is integrally associated with the container since it is a component of the composition of the material that the container is formed from and that the diguanamine is substantially insoluble in water when the n value of the ammonium polyphosphate taught by Oishi et al. is a substantially

Art Unit: 1772

large value (col. 24, line 16-20). In regard to claim 61, Oishi et al. teach that the antimicrobial additive (the diguanamine) is an antifouling agent (col. 3, lines 43-45).

14. Claims 37, 47 and 49-54 are rejected under 35 U.S.C. 102(b) as being anticipated by Nagano et al.

In regard to claim 37, Nagano et al. teach that the antimony trioxide fire proofing agent is present in an amount of 6 parts per weight (ppw) of the total composition (page 5, paragraph 0019 and page 6, paragraph 25). This amount falls within the claimed range of "more than zero and up to and including 25 parts by weight of the total polymeric composition".

In regard to claim 47, Nagano et al. teach that talc is included in the composition of the container to add strength to the molded product (page 4, paragraph 0015 of Public Report of Disclosure of Patent); therefore, the talc taught by Nagano et al. is a performance enhancement additive that is a filler as claimed by Applicant since the talc enhances the strength of the molded product as taught by Nagano et al. In regard to claim 49, Nagano et al. teach that polypropylene (a polyolefin) is present in an amount of 80 (or 60) parts per weight (ppw) of the total composition and that the epoxy is present in an amount of 1 (or 3) part/s per weight (ppw) of the total composition (page 5, paragraph 0019 and page 6, paragraph 0025); the polypropylene is a fully prepolymerized uncrosslinked hydrocarbon polyolefin resin. In regard to claims 50 and 54, the uncrosslinked prepolymerized polyolefin is polypropylene, which is a homopolymer (as claimed in claim 50) and an alpha-olefin (as claimed in claim 54). In regard to claim 51, the antimony trioxide fire proofing agent is present in an amount of 6 parts per weight (ppw) of the total composition (page 5, paragraph 0019 and page 6, paragraph 0025). This amount falls within the claimed range of "more than 0 to 70 parts by weight of the weight of the total composition".

Art Unit: 1772

In regard to claims 52 and 53, Nagano et al. teach epoxy resin as stated in paragraph 12 of Paper 9.

Claim Rejections - 35 USC § 103

15. Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Oishi et al. in view of Endo et al.

Oishi et al. teach the container as discussed above. Oishi et al. fail to explicitly teach that the container is a pallet. Endo et al., however, teach a resin composition comprising a non-halogenated flame retardant (col. 37, lines 61-64) that is formed into a container or a pallet (col. 7, lines 38-39). Therefore, one of ordinary skill in the art would have recognized to have formed the container of Oishi et al. in the form of a pallet since it is notoriously well known to form flame retardant containing plastic pallets as taught by Endo et al.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have formed the container of Oishi et al. in the form of a pallet since it is notoriously well known to form flame retardant containing plastic pallets as taught by Endo et al.

16. Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Oishi et al. in view of Perez et al. and in further view of Angell, Jr.

Oishi et al. teach the container as discussed above. Oishi et al. fail to explicitly teach that the container comprises structural foam comprising an integral skin and a cellular core. Perez et al., however, disclose a polymer network that is applied to a storage vessel (col. 3, lines 24-25) comprising a thermally cured epoxy resin and a fully prepolymerized hydrocarbon polyolefin (col. 3, lines 8-12). Perez et al. disclose that the composition is a foam (any foam would be considered to be "structural") (col. 23, lines 58-59). Furthermore, Angell, Jr. discloses a

Art Unit: 1772

container formed of a foamable polymeric material having a wall having a dense surface zone (also referred to by Angell, Jr. as a shell) and a cellular interior that has a greater flexural strength and stiffness than a wall of the same thickness that is uniformly solid (col. 2, lines 8-22 and 42-71). The shell disclosed by Angell, Jr. is structurally equivalent to the integral skin as claimed by Applicant. Therefore, one of ordinary skill in the art would have recognized to have used the polymeric foam composition of Perez et al. that comprises a thermally cured epoxy resin and a fully prepolymerized hydrocarbon polyolefin as a component of the container of Oishi et al. since the polymeric foam composition of Perez et al. is applied to a storage vessel as taught by Perez et al. and to have formed the container such that the foam comprises an integral skin and a cellular core in order to maximize the flexural strength and stiffness of the container as taught by Angell, Jr.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the polymeric foam composition of Perez et al. that comprises a thermally cured epoxy resin and a fully prepolymerized hydrocarbon polyolefin as a component of the container of Oishi et al. since the polymeric foam composition of Perez et al. is applied to a storage vessel as taught by Perez et al. and to have formed the container such that the foam comprises an integral skin and a cellular core in order to maximize the flexural strength and stiffness of the container as taught by Angell, Jr.

17. Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nagano et al. in view of Perez et al. and in further view of Angell, Jr.

Nagano et al. teach a plastic pallet comprising polyolefin resin, epoxy resin and a fire proofing agent (page 3, paragraph 0007 of Public Report of Disclosure of Patent). Epoxy resin is

Art Unit: 1772

a thermosetting resin. A pallet is a container for shipping and storage. Nagano et al. teach that the pallet comprises antimony trioxide as a fire proofing agent (equivalently a flame retardant) (page 3, paragraphs 0007 and 0008 of Public Report of Disclosure of Patent). Antimony trioxide is non-halogenated, and is therefore a non-halogenated flame retardant. Nagano et al. fail to explicitly teach that the container comprises structural foam comprising an integral skin and a cellular core. Perez et al., however, disclose a polymer network that is applied to a storage vessel (col. 3, lines 24-25) comprising a thermally cured epoxy resin and a fully prepolymerized hydrocarbon polyolefin (col. 3, lines 8-12). Perez et al. disclose that the composition is a foam (any foam would be considered to be "structural") (col. 23, lines 58-59). Furthermore, Angell, Jr. discloses a container formed of a foamable polymeric material having a wall having a dense surface zone (also referred to by Angell, Jr. as a shell) and a cellular interior that has a greater flexural strength and stiffness than a wall of the same thickness that is uniformly solid (col. 2, lines 8-22 and 42-71). The shell disclosed by Angell, Jr. is structurally equivalent to the integral skin as claimed by Applicant. Therefore, one of ordinary skill in the art would have recognized to have used the polymeric foam composition of Perez et al. that comprises a thermally cured epoxy resin and a fully prepolymerized hydrocarbon polyolefin as a component of the pallet of Nagano et al. since the polymeric foam composition of Perez et al. is applied to a storage vessel as taught by Perez et al. and to have formed the container such that the foam comprises an integral skin and a cellular core in order to maximize the flexural strength and stiffness of the container as taught by Angell, Jr.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the polymeric foam composition of Perez et al. that comprises a

Art Unit: 1772

thermally cured epoxy resin and a fully prepolymerized hydrocarbon polyolefin as a component of the pallet of Nagano et al. since the polymeric foam composition of Perez et al. is applied to a storage vessel as taught by Perez et al. and to have formed the container such that the foam comprises an integral skin and a cellular core in order to maximize the flexural strength and stiffness of the container as taught by Angell, Jr.

18. Claim 46 is rejected under 35 U.S.C. 103(a) as being unpatentable over Oishi et al. in view of Radican.

Oishi et al. teach the container as discussed above. Oishi et al. fail to teach that the container further comprises at least one radio frequency identification (RFID) tag. Radican, however, teaches the use of RFID tags to enable the rapid acquisition and updating of container location and status (col. 13, lines 19-22). Therefore, one of ordinary skill in the art would have recognized to have provided RFID tags to the container of Oishi et al. in order to enable the rapid acquisition and updating of container location and status as taught by Radican.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided RFID tags to the container of Oishi et al. in order to enable the rapid acquisition and updating of container location and status as taught by Radican.

19. Claim 46 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nagano et al. in view of Radican.

Nagano et al. teach the container as discussed in paragraph 12 of Paper 9. Nagano et al. fail to teach that the container further comprises at least one radio frequency identification (RFID) tag. Radican, however, teaches the use of RFID tags on pallets (col. 14, line 33) to enable the rapid acquisition and updating of container location and status (col. 13, lines 19-22).

Art Unit: 1772

Therefore, one of ordinary skill in the art would have recognized to have provided RFID tags to the pallet of Nagano et al. in order to enable the rapid acquisition and updating of container location and status as taught by Radican.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided RFID tags to the pallet of Nagano et al. in order to enable the rapid acquisition and updating of container location and status as taught by Radican.

20. Claim 48 is rejected under 35 U.S.C. 103(a) as being unpatentable over Oishi et al. in view of Juhanson.

Oishi et al. teach the container as discussed above. Oishi et al. fail to teach that the container further comprises a friction material on at least one surface of the container. Juhanson, however, disclose a container having a high friction pad attached to the bottom of the container to provide a non-skid surface to the bottom of the container (col. 2, lines 39-45). Therefore, one of ordinary skill in the art would have recognized to have attached the high friction pad of Juhanson to the bottom of the container of Oishi et al. in order to provide a non-skid surface to the bottom of the container as taught by Juhanson.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have attached the high friction pad of Juhanson to the bottom of the container of Oishi et al. in order to provide a non-skid surface to the bottom of the container as taught by Juhanson.

21. Claim 48 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nagano et al. in view of Dresen et al.

Nagano et al. teach the container as discussed in paragraph 12 of Paper 9. Nagano et al. fail to teach that the container comprises a friction material on at least one surface thereof. Dresen et al., however, disclose a pallet (item 10, Fig. 1-3) having a non-skid upper and/or lower surface (col. 5, lines 24-31) that is/are suitably formed of a variety of ethylene ethyl acetate resins and ethylene vinyl acetate resins (col. 5, lines 31-49). Therefore, one of ordinary skill in the art would have recognized to have applied the non-skid materials of Dresen et al. to the upper and/or lower surface/s of the pallet of Nagano et al. in order to provide a non-slip surface or non-slip surfaces to the pallet of Nagano et al. since it is notoriously well known to provide pallets with a non-skid surface or non-skid surfaces as taught by Dresen et al.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have applied the non-skid materials of Dresen et al. to the upper and/or lower surface/s of the pallet of Nagano et al. in order to provide a non-slip surface or non-slip surfaces to the pallet of Nagano et al. since it is notoriously well known to provide pallets with a non-skid surface or non-skid surfaces as taught by Dresen et al.

22. Claims 55-59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagano et al. in view of Perez et al.

Nagano et al. teach the container as discussed in paragraph 12 of Paper 9. In regard to claim 55, Nagano et al. fail to teach that the polymeric composition further comprises at least one of a photoactivatable catalyst and a thermal curing agent. Perez et al., however, disclose a polymer network that is applied to a storage vessel (col. 3, lines 24-25) comprising a thermally cured epoxy resin, a fully prepolymerized hydrocarbon polyolefin and optionally a fully prepolymerized functionalized polyolefin resin (col. 3, lines 8-12). Perez et al. disclose that the

Art Unit: 1772

epoxy resin is cured by a photoactivatable cationic catalyst (col. 3, lines 13-17 and col. 23, lines 40-42). In regard to claims 56 and 57, Perez et al. teach that the photoactivatable cationic catalyst is an onium salt photoinitiator or a cationic organometallic complex salt (col. 23, lines 43-47) and that the thermal curing agent is an aliphatic or aromatic primary, secondary or tertiary amine (col. 23, lines 48-49). In regard to claims 58 and 59, Perez et al. disclose that the composition is a foam that is cured and is a semi-interpenetrating polymer network (col. 23, lines 54-55 and 58-59). Therefore, one of ordinary skill in the art would have recognized to have used the polymeric composition of Perez et al. as a component of the pallet of Nagano et al. since the polymeric composition of Perez et al. is applied to a storage vessel as taught by Perez et al.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the polymeric composition of Perez et al. as a component of the pallet of Nagano et al. since the polymeric composition of Perez et al. is applied to a storage vessel as taught by Perez et al.

23. Claims 60 and 61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagano et al. in view of Ueeda et al. and in further view of Dyckman et al.

Nagano et al. and Ueeda et al. teach the container as discussed in paragraph 19 of Paper 9. Ueeda et al. disclose a propylene based polymer sheet that may be blended with another resin that is formed into a container or a pallet that comprises an antimicrobial agent (col. 9, lines 23-43). Ueeda et al. disclose that the antimicrobial additive is integrally associated with the container since Ueeda et al. disclose that the antimicrobial agent is blended with the resin (col. 9, lines 23-43). Therefore, one of ordinary skill in the art would have recognized to have added an antimicrobial agent to the composition of Nagano et al. such that the antimicrobial additive is

Art Unit: 1772

integrally associated with the container since it is notoriously well known to include antimicrobial agents that are integrally associated with the container in polypropylene based polymeric blends that are formed into containers or pallets as taught by Ueeda et al.

While Nagano et al. and Ueeda et al. fail to teach that the antimicrobial additive (that is integrally associated with the container) is substantially insoluble in water, Dyckman et al. disclose a biocidal polymer such as an epoxy resin that is chemically combined with a biocidal, antifouling organic tin moiety (col. 1, lines 6-13, col. 3, lines 47-68 and col. 5, lines 35-38). Dyckman et al. disclose that the leaching of organometallic antifouling salts (such as organotin salts), which introduces toxic metallic compounds to water environments, is reduced by using less water-soluble homologs of the organometallic antifouling salts (col. 2, lines 8-55). Therefore, one of ordinary skill in the art would have recognized to have used the organotin salts having relatively low water solubility of Dyckman et al. as the antimicrobial agent of the container of Nagano et al. and Ueeda et al. in order to reduce the leaching rate of organometallic salts and to thus reduce the release of toxic metallic compounds as taught by Dyckman et al.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have added an antimicrobial agent to the composition of Nagano et al. such that the antimicrobial additive is integrally associated with the container since it is notoriously well known to include antimicrobial agents that are integrally associated with the container in polypropylene based polymeric blends that are formed into containers or pallets as taught by Ueeda et al. and to have used the organotin salts having relatively low water solubility of Dyckman et al. as the antimicrobial agent of Ueeda et al. in order to reduce the leaching rate of

Art Unit: 1772

organometallic salts and to thus reduce the release of toxic metallic compounds as taught by Dyckman et al.

In regard to claim 61, Dyckman et al. explicitly disclose that the organotin salt is an antifouling agent (col. 1, lines 6-13) and a slimicide (col. 3, 47-48).

ANSWERS TO APPLICANT'S ARGUMENTS

24. Applicant's summary of the amendments to claim 30 in the second paragraph of page 6 of Paper 15 incorrectly states:

Claim 30 has been amended to make it absolutely clear that the only flame retardant(s) that can be present in the plastic container composition are non-halogenated flame retardant(s). Halogenated flame retardants are expressly excluded.

While the language of claim 30 "make[s] it absolutely clear" that one flame retardant of the composition be non-halogenated, claim 30 does not impose any limitations whatsoever on the makeup of the other flame retardant or retardants from the group of flame retardants that is implicitly recited by the phrase "at least one flame retardant". The language of claim 30 in no way "expressly exclude[s]" halogenated flame retardants from the scope of the invention as Applicant alleges. Replacing "said at least one flame retardant being" with --where all of the flame retardants in said plastic container composition are-- would exclude halogenated flame retardants from the scope of the claim. Furthermore, please use only one term for the claimed composition to avoid confusion in interpreting the claim; e.g. replace the term "polymeric" in line 2 with --plastic container--; see the 35 U.S.C. 112 rejection of claim 30 made of record in this Office Action.

25. Applicant's arguments on pages 6-7 of Paper 15 regarding the 35 U.S.C. 102(b) rejection of claims 30-32 and 37 as anticipated by Nagano et al. have been fully considered but are not

Art Unit: 1772

persuasive. Applicant incorrectly argues that “the present invention composition, as defined by the present claims, cannot contain a halogenated fire retardant”. Halogenated fire retardants are not excluded from the scope of claim 30; claim 30 only requires that one flame retardant of the composition be non-halogenated. Contrary to Applicant’s argument, the language of claim 30 is open to a halogenated fire retardant, as long as the composition contains a non-halogenated fire retardant.

In the last two lines of page 6 of Paper 15, Applicant states that “Applicant’s invention requires the presence of a thermosetting agent that cannot be a halogenated epoxy”, but none of the claims recite a thermosetting agent that is not a halogenated epoxy; moreover, none of the claims recite a “thermosetting agent”. Again, contrary to Applicant’s argument, halogenated epoxy is in no way “expressly excluded by the wording of amended claim 30” as Applicant baselessly alleges. At the top of page 7 of Paper 15, Applicant points out that “the composition of the Comparative Example of Nagano et al. contains a nonhalogenated fire proofing agent”; note that the examples “of practice” of Nagano et al. also contain a nonhalogenated fire proofing agent (antimony trioxide, paragraphs 0019 and 0025 of Nagano et al., as cited where appropriate in the rejections presented in this Office Action). Any argument based on a “thermosetting agent” is meaningless because a “thermosetting agent” is not recited in any of the claims. “Thermosetting resin” and “thermosetting agent” (equivalently, curing agent) are entirely separate entities. Contrary to Applicant’s argument that “the composition of the claims of the present invention cannot be anticipated by the working examples [of Nagano et al.]”, the working examples of Nagano et al. (i.e. the examples “of practice” of Nagano et al.) anticipate

Art Unit: 1772

claims 30-32 and 37 for the reasons provided in this Office Action (in regard to claim 37) and in Paper 9 and Paper 13 (in regard to claims 30-32).

26. Applicant's arguments on page 7 of Paper 15 regarding the 35 U.S.C. 103(a) rejections have been fully considered but are not persuasive. Applicant argues that Nagano et al. presents "a teaching away from producing Nagano et al.'s product without halogenated epoxy in the formulation of the composition". Again, the claims of the instant Application do not exclude halogenated epoxy (as a halogenated flame retardant or otherwise) from the scope of the claims of the instant Application. This "teaching away from producing Nagano et al.'s product without halogenated epoxy" is therefore not a "teaching away" from the invention claimed in the instant application; instead, it fits within the scope of the invention as claimed.

Conclusion

27. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Walter B. Aughenbaugh whose telephone number 571-272-1488. The examiner can normally be reached on Monday-Thursday from 9:00am to 6:00pm and on alternate Fridays from 9:00am to 5:00pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon, can be reached on 571-272-1498. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

wba

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WBA


HAROLD PYON
SUPERVISORY PATENT EXAMINER
1-11-12

1/9/04